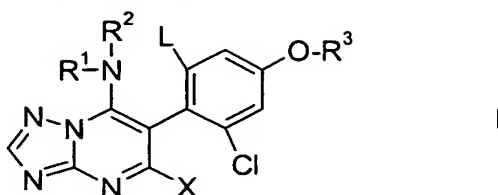


What is claimed is:

1. A triazolopyrimidine of the formula I



5 in which the substituents are as defined below:

L is hydrogen, chlorine or bromine;

10 R¹, R² independently of one another are hydrogen, C₁-C₈-alkyl, C₁-C₈-haloalkyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, C₂-C₈-alkenyl, C₂-C₈-haloalkenyl, C₃-C₆-cycloalkenyl, C₃-C₆-halocycloalkenyl, C₂-C₈-alkynyl, C₂-C₈-haloalkynyl or phenyl, naphthyl or a five- or six-membered saturated, partially unsaturated or aromatic heterocycle which contains one to four heteroatoms from the group consisting of O, N and S,

15 R¹ and R² together with the nitrogen atom to which they are attached may also form a five- or six-membered heterocyclyl or heteroaryl which is attached via N and may contain one to three further heteroatoms from the group consisting of O, N and S as ring member and/or may carry one or more substituents from the group consisting of halogen, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₂-C₆-alkenyl, C₂-C₆-haloalkenyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₃-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, (exo)-C₁-C₆-alkylene and oxy-C₁-C₃-alkylenoxy;

25 R³ is C₁-C₈-alkyl, C₁-C₈-haloalkyl, C₃-C₈-alkenyl, C₃-C₈-haloalkenyl, C₃-C₈-alkynyl, C₃-C₈-haloalkynyl, C₃-C₈-cycloalkyl, C₃-C₈-halocycloalkyl, or phenyl-C₁-C₄-alkyl;

30 R¹, R² and/or R³ may carry one to four identical or different groups Rᵃ:

35 Rᵃ is halogen, cyano, nitro, hydroxyl, C₁-C₆-alkyl, C₁-C₆-haloalkyl, C₁-C₆-alkylcarbonyl, C₃-C₆-cycloalkyl, C₁-C₆-alkoxy, C₁-C₆-haloalkoxy, C₁-C₆-alkoxycarbonyl, C₁-C₆-alkylthio, C₁-C₆-alkylamino, di-C₁-C₆-alkylamino, C₂-C₈-alkenyl, C₂-C₈-haloalkenyl, C₃-C₈-cycloalkenyl, C₂-C₆-alkenyloxy, C₃-C₆-haloalkenyloxy, C₂-C₆-alkynyl, C₂-C₆-haloalkynyl, C₃-C₆-alkynyloxy, C₃-C₆-haloalkynyloxy, C₃-C₆-cycloalkoxy, C₃-C₆-cycloalkenyloxy, oxy-C₁-C₃-alkylenoxy, phenyl, naphthyl, a five- to ten-membered saturated, partially

unsaturated or aromatic heterocycle which contains one to four heteroatoms from the group consisting of O, N and S,

5 where these aliphatic, alicyclic or aromatic groups for their part may be partially or fully halogenated or may carry one to three groups R^b :

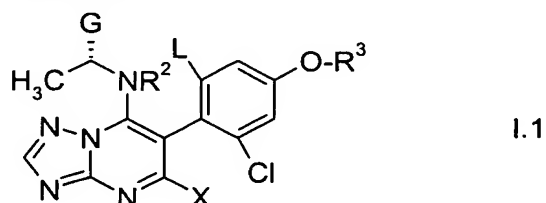
R^b is halogen, cyano, nitro, hydroxyl, mercapto, amino, carboxyl, aminocarbonyl, aminothiocarbonyl, alkyl, haloalkyl, alkenyl, alkenyloxy, alkynyloxy, alkoxy, haloalkoxy, alkylthio, alkylamino, 10 dialkylamino, formyl, alkylcarbonyl, alkylsulfonyl, alkylsulfoxy, alkoxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminothiocarbonyl, dialkylaminothiocarbonyl, where the alkyl groups in these radicals contain 1 to 6 carbon atoms and the abovementioned alkenyl or 15 alkynyl groups in these radicals contain 2 to 8 carbon atoms;

and/or one to three of the following radicals:

20 cycloalkyl, cycloalkoxy, heterocyclyl, heterocyclyloxy, where the cyclic systems contain 3 to 10 ring members; aryl, aryloxy, arylthio, aryl- C_1 - C_6 -alkoxy, aryl- C_1 - C_6 -alkyl, hetaryl, hetaryloxy, het-arylthio, where the aryl radicals preferably contain 6 to 10 ring members and the hetaryl radicals 5 or 6 ring members, where the 25 cyclic systems may be partially or fully halogenated or substituted by alkyl or haloalkyl groups;

X is halogen, cyano, C_1 - C_4 -alkyl, C_1 - C_4 -haloalkyl, C_1 - C_4 -alkoxy or C_1 - C_2 -haloalkoxy.

- 30 2. The compound of the formula I as claimed in claim 1 in which X is chlorine.
3. The compound of the formula I as claimed in claim 1 or 2 in which R^1 is not hydrogen.
- 35 4. A compound of the formula I.1:

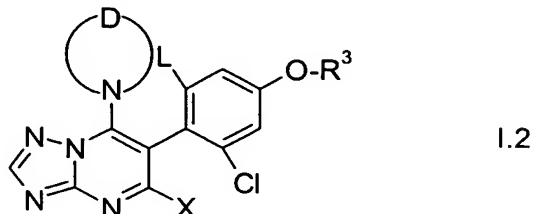


in which

G is C_2 - C_6 -alkyl, C_1 - C_4 -alkoxymethyl or C_3 - C_6 -cycloalkyl;

R^2 is hydrogen or methyl; and
 X is chlorine, methyl, cyano, methoxy or ethoxy
 and L and R^3 are as defined in claim 1.

5. A compound of the formula I.2:

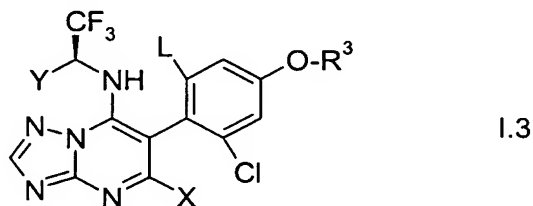


in which

D together with the nitrogen atom forms a five- or six-membered heterocyclyl or heteroaryl which is attached via N and may contain a further heteroatom from the group consisting of O , N and S as ring member and/or may carry one or more substituents from the group consisting of halogen, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy and C_1 - C_2 -haloalkyl;

X is chlorine, methyl, cyano, methoxy or ethoxy
 and L and R^3 are as defined in claim 1.

6. A compound of the formula I.3:



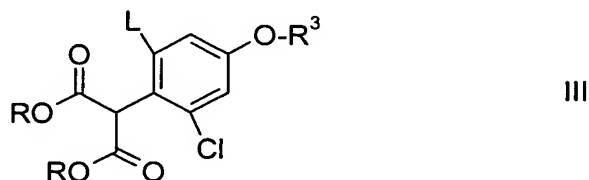
in which Y is hydrogen or C_1 - C_4 -alkyl;

X is chlorine, methyl, cyano, methoxy or ethoxy and L and R^3 are as defined in claim 1.

7. A process for preparing the compounds of the formula I as claimed in claim 1 in which X is halogen, cyano, C_1 - C_4 -alkyl, C_1 - C_4 -alkoxy or C_1 - C_2 -haloalkoxy by reaction of 5-aminotriazole of the formula II

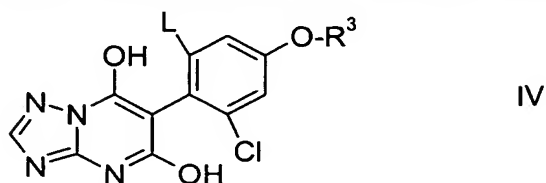


with phenylmalonates of the formula III

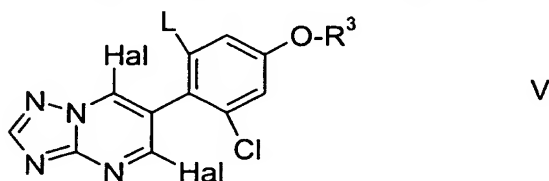


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in which R is alkyl, to give dihydroxytriazolopyrimidines of the formula IV,



halogenation to give the dihalo compounds of the formula V



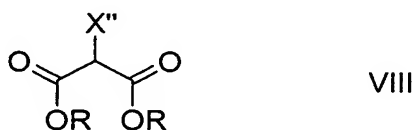
5 and reaction of V with amines of the formula VI



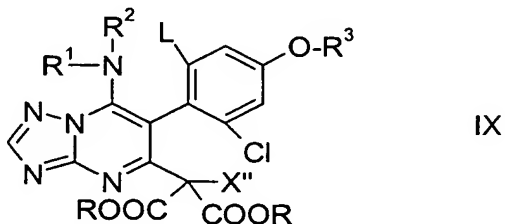
to give compounds of the formula I in which X is halogen, if desired, to prepare compounds I in which X is cyano, C₁-C₄-alkoxy or C₁-C₂-haloalkoxy, reaction of compounds I in which X is halogen with compounds of the formula VII



which, depending on the group X' to be introduced, are inorganic cyanides, alkoxylates or haloalkoxylates and in which M is an ammonium, tetra-alkylammonium, alkali metal or alkaline earth metal cation, and, if desired, to prepare compounds of the formula I as claimed in claim 1 in which X is alkyl, by reaction of the compounds I in which X is halogen with malonates of the formula VIII.



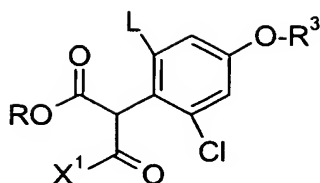
in which X" is hydrogen or C₁-C₃-alkyl and R is C₁-C₄-alkyl, to give compounds of the formula IX



and decarboxylation to give compounds I in which X is alkyl.

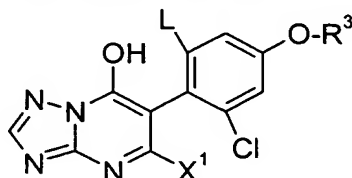
8. A process for preparing the compounds of the formula I as claimed in claim 1 in which X is C₁-C₄-alkyl or C₁-C₄-haloalkyl by reaction of 5-aminotriazole of the formula II as set forth in claim 7 with keto esters of the formula IIIa,

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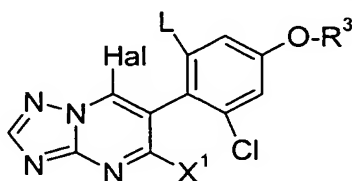
IIIa

in which X¹ is C₁-C₄-alkyl or C₁-C₄-haloalkyl and R is C₁-C₄-alkyl, to give 5-alkyl-7-hydroxy-6-phenyltriazolopyrimidines of the formula IVa



IVa

5 halogenation of IVa to give 7-halotriazolopyrimidines of the formula Va



Va

and reaction of Va with amines of the formula VI as set forth in claim 7 to give compounds I.

- 10 9. A compound of the formulae IV, IVa, V or Va as set forth in claims 7 and 8.
10. A fungicidal composition, comprising a solid or liquid carrier and a compound of the formula I as claimed in claim 1.
- 15 11. Seed, comprising 1 to 1000 g of a compound of the formula I as claimed in claim 1 per 100 kg.
12. A method for controlling phytopathogenic harmful fungi, which method comprises treating the fungi or the materials, plants, the soil or seed to be protected against fungal attack with an effective amount of a compound of the formula I as claimed in claim 1.
- 20